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EXAMINER

ABRAHAM, ESAW T

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,254	Applicant(s) SETTON ET AL.	
	Examiner Esaw T. Abraham	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 1005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 8-11, 15, 18-31, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6, 7, 12-14, 16, 17 and 32-34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RESPONSE TO APPLICANT'S REMARKS

Applicant's arguments, filed 10/05/07, with respect to the rejection(s) of claim(s) 1-36 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Orchard et al. (U.S. PN: 6,556,624) in view of Cohen (U.S. PN: 6,952,450).

Claim objections

1. Claim 8 is objected to because of the following informalities:

In line 6, the claim recites "the receiver" should be "a receiver" to create proper antecedent.

Appropriate correction is requested.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims **21-30** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 21 and 28:

In view of the Applicant's disclosure, specification page 17 paragraph 0074, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., an electronic circuit, a semiconductor memory device, a read only memory (ROM), a flash memory, an erasable ROM (EROM), a floppy diskette, a compact disk (CD)

ROM, an optical disk, a hard disk) and intangible embodiments (e.g., a fiber optic medium, a radio frequency (RF) link, etc”,. As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

Claims 22-27, 28 and 30 are at least rejected for their dependencies, directly or indirectly, on the rejected claims 21 and 28 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere CO.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 5, 8-11, 15, 18-21, 25, 28-31, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orchard et al. (U.S. PN: 6,556,624) in view of Cohen (U.S. PN: 6,952,450).

As per claims 1, 11, 21 and 31:

Orchard et al. substantially teach an apparatus and a method comprising a buffer (see figure 1 element 160) to store at least a default stream coded by a multiple description (MID) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content (see col. 4, lines 2-7); a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver (see figure 1, element 110 and col. 3, lines 58-67 and col. 4, lines 1-7).

Orchard et al. teaches that a rate control unit is connected to the mode selector (110), the I-mode MDC (120) and the P-mode MDC (130) and the rate control component (150) regulates the total number of bits that can be used on a frame-by-frame basis (see figure 1 element 150 and col. 3, lines 66-67 and col. 4, lines 43-55).

Orchard et al. do not explicitly teach an analyzer coupled to the selector to provide the transmission status based on feedback information provided by the receiver.

However, Cohen in an analogous art teaches that video is encoded by a Video encoder or arrives as a stored video bit stream the stored video arrive from a server in a client-server network (see col2, lines 59-64). Further, Cohen teaches motion vectors analyzed in an analysis tool (120) and certain frames or portion of certain frames that comprised the video stream are labeled "important", for example, prediction about which portions of the certain frames are most likely to be lost are made (see col. 3, lines 7-13).

Therefore, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to include an analyzer for analyzing the transmission status in the system of Orchard et al. as suggested by Cohen.

This modification would have been obvious to one of ordinary skill in the art because one of ordinary skill in the art would have recognized by including an analyzer to analyze a transmission status would have improve the efficiency of the transmission process

As per claims 5, 15 and 25:

Orchard et al. in view of the above rejection teaches wherein the default stream includes a plurality of description streams that are independently encoded (see col. 16, lines 50-54).

As per claims 8, 18, 28 and 35:

Orchard et al. substantially teach or disclose an apparatus comprising: an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content and a decoder coupled to the receiver to decode the stream (see col. 8, lines col. lines 31-43, col. 10, lines 52-60 and col. 16, lines 32-49)

Orchard et al. do not explicitly a feedback generator coupled to the receiver to provide feedback information regarding transmission of the stream to the transmitter.

However, Cohen in an analogous art teaches that a transmitter 150 sends the video stream through a physical or wireless medium to one or more devices (e.g., receivers). Preferably, the devices are located on a network. In an embodiment of the present invention where a feedback-type protector is used, the motion vector analysis can be used to handle the feedback from the network. In such an embodiment, the transmitter (150) can send the video stream back to the analyzer software tool 120. Feedback can also be used to affect the type of error protection given. For example, if the receiver (not shown) feeds back data indicating that motion is not

being reproduced correctly (e.g., due to errors) to the analysis software tool 120, the system 1 can increase or change the level of protection given to the video stream based upon both the feedback from the receiver and the type of motion vectors in the stream. The system 1 can also be programmed to ignore certain types of feedback. For example, if the receiver (not shown) detects that a packet is missing and sends a request for retransmission to the system 1 of FIG. 1, the system 1 can be programmed to ignore the request (see col. 4, lines 1-19).

Therefore, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to include a feedback generator coupled to the receiver to provide feedback information regarding transmission of the stream to the transmitter in the system of Orchard et al. as suggested by Cohen.

This modification would have been obvious to one of ordinary skill in the art because one of ordinary skill in the art would have recognized by including a feedback generator coupled to the receiver to provide feedback information regarding transmission of the stream to the transmitter would have improve the efficiency of the transmission process.

As per claims 9, 19, 29 and 36:

Cohen in view of the above rejection teaches wherein the decoder comprises: an error concealer to conceal error caused by packet loss (see col. 4, lines 20-21).

As per claims 10, 20 and 30:

Cohen in view of the above rejection teaches wherein the I/O module sends an acknowledgment over the transmission path when the stream is received (see col. 4, lines 1-19).

Allowable subject matter

4. Claims **2-4, 6, 7, 12-14, 16, 17, 32-34** are objected to as being dependent upon a rejected base claim but would be allowable if rewritten independent from including all of the limitation of the base claim and any intervening claims.

Below are Examiner's reasons for indication of allowable subject matter:

As per claims 2, 12 and 32:

The claimed invention comprises an apparatus and a method wherein the transmission status is one of a normal condition and a restart condition, the restart condition indicating that there is a frame loss in a description stream of the default stream and that it is time to transmit a frame from the description stream having the frame loss which the prior art do not teach or render obvious.

Claims **3, 4, 13, 14, 33 and 34** which are directly or indirectly dependents of claims 2 and 12 are also objected.

As per claims 6 and 16:

The claimed invention comprises an apparatus and a method wherein the analyzer comprises: a delay tracker to track delay characteristics of a transmission path; and a probe tracker to keep track of probing packet to be sent over a transmission path to provide path statistics which the prior art do not teach or render obvious.

Claims **7 and 17**, which are directly or indirectly dependents of claims 6 and 16 are also objected.

5. Claims **22-24, 26 and 27** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the


limitations of the base claim and corrections made to overcome any objections and rejections 35 USC 101.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esaw T. Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8am-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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